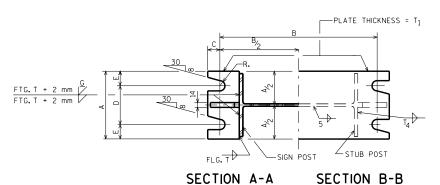


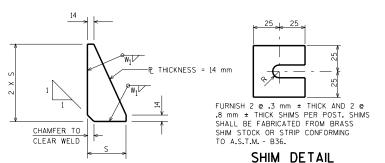
-8-#10 VERTICAL BARS #13 HOOPS @ 300 mm SPA. -DRILLED SHAFT

FOUNDATION DETAIL



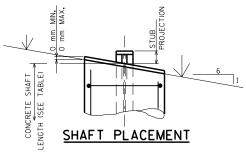
32 mm ≠ HOLE FOR HANDLING -

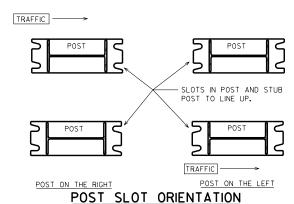
POST DETAIL



25.2

27.7





STIFFENER PLATE DETAIL (SEE TABLE FOR DIMENSIONS)

	QUANTITIES FO	R 1 FOOTING
	CONC.	H. S. REINF.
	MASONRY m ³	STEEL kG
Α	0.45	15.5
В	0.63	22.0
С	0.67	22.6

0.72

0.76

	TYPE	#10-VERTICAL	#13-H00PS					
REINF.	Α	8 @ 1350 mm	5 @ 1900 mm					
	В	8 @ 1950 mm	7 @ 1900 mm					
	С	8 @ 2100 mm	7 @ 1900 mm					
	D	8 @ 2250 mm	8 @ 1900 mm					
	Ε	8 @ 2400 mm	9 @ 1900 mm					

		BASE CONNECTION DATA TABLE											FOUNDATION DATA				l
TYPE	DIMENSION POST SIZE	BOLT SIZE & TORQUE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	T ₁	T ₄ (mm)	W ₁ (mm)	R (mm)	S (mm)	STUB LENGTH (mm)	STUB PROJECTION (mm)	SHAFT DIAMETER (mm)	SHAFT LENGTH (mm)	K (kG
Α	W250 X18	M20 @ 102 N-m	133	314	22	89	22	25	5	8	10	54	1100	75	610	1550	35.1
В	W310 X 24	M22 @ 115 N-m	140	413	25	89	25	32	6	8	12	75	1700	75	610	2150	67.8
С	W310 X 28	M22 @ 115 N-m	140	413	25	89	25	38	8	8	12	75	1850	75	610	2300	82.
D	W310 X 33	M22 @ 115 N-m	140	413	25	89	25	38	10	8	12	75	2000	75	610	2450	96.8
E	W310 X 39	M24 @ 122 N-m	178	413	32	102	38	38	10	8	13	75	2150	75	610	2600	124.
																	1

STRUCTURAL CARBON STEEL PAY WTS. (1POST) = K+ (POST LENGTH X POST WT.) "K" INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

DESIGN DATA

WIND PRESSURE = 121 km/hr
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0 ICE LOAD = 144 Pa

GROUP LOADS PERCENT OF ALLOWABLE STRESS 2. DEAD & WIND 3. DEAD, ICE & 1/2 WIND A

ALLOWABLE SOIL PRESSURE = 144 kPa

WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.

ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985. ALL POST, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709M GRADE 345, EXCEPT WHERE CONTRACT REQUIRES A709M GRADE 345W.

IF A709M GRADE 345 MATERIALS ARE USED, THE POST, BASE PLATES, UPPER 150 mm OF STUB POST, FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER

H.S. BOLTS, WASHERS & NUTS SHALL BE A325 TYPE 3 NOT GALVANIZED WHEN CONTRACT REQUIRES A709M GRADE 345W POSTS, POST STUBS, AND ATTACHMENTS.

H.S. BOLTS, WASHERS, & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709M

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETWEEN PLATES.

2. SHIM AS REQ'D. TO PLUMB POST.

3. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 300 mm OR 380 mm WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)

4. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE: TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVER TIGHTEN.

BREAK AWAY SIGN SUPPORT DETAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DEVELOPMENT SECTION

APPROVED: